CLAIMS:

1. An electrically conductive precursor composition comprising:

an organic polymer precursor;

a single wall nanotube composition, wherein the single wall nanotube composition contains at least 0.1 wt% of production related impurities; and

an optional nanosized conductive filler.

2. The composition of Claim 1, wherein the organic polymer precursor may be polymerized into a thermoplastic polymer.

3. The composition of Claim 1, wherein the organic polymer precursor is polymerized into a polyacetal, polyacrylic, polycarbonate, polystyrene, polyester, polyamide, polyamideimide, polyarylate, polyarylsulfone, polyethersulfone, polyphenylene sulfide, polyvinyl chloride, polysulfone, polyimide, polyetherimide, polytetrafluoroethylene, polyetherketone, polyether etherketone, polyether ketone ketone, polybenzoxazole, polyoxadiazole, polybenzothiazinophenothiazine, polybenzothiazole, polypyrazinoquinoxaline, polypyromellitimide, polyquinoxaline, polybenzimidazole, polyoxindole, polyoxoisoindoline, polydioxoisoindoline, polytriazine, polypyridazine, polypiperazine, polypyridine, polypiperidine, polytriazole, polypyrazole, polypyrrolidine, polycarborane, polyoxabicyclononane, polydibenzofuran, polyphthalide, polyacetal, polyanhydride, polyvinyl ether, polyvinyl thioether, polyvinyl alcohol, polyvinyl ketone, polyvinyl halide, polyvinyl nitrile, polyvinyl ester, polysulfonate, polysulfide, polythioester, polysulfone, polysulfonamide, polyurea, polyphosphazene, polysilazane, or a combination comprising at least one of the foregoing organic polymers.

4. The composition of Claim 1, wherein the organic polymer precursor is a monomer, dimer, trimer, or an oligomeric reactive species having up to about 40 repeat units.

5. The composition of Claim 2, wherein the thermoplastic polymer has a molecular weight of greater than or equal to about 3,000 grams per mole.

6. The composition of Claim 1, wherein the single wall carbon nanotube composition comprises single wall carbon nanotubes having a diameter of about 0.7 to about 2.4 nanometers.

7. The composition of Clam 6, wherein the single wall carbon nanotubes have an aspect ratio of greater than or equal to about 5.

8. The composition of Claim 1, wherein the organic polymer precursor composition further comprises a solvent.

9. The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 10 carbon nanotubes.

10. The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 100 carbon nanotubes.

11. The composition of Claim 6, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 1000 carbon nanotubes.

12. The composition of Claim 1, wherein the single wall carbon nanotube composition comprises up to about 10 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

13. The composition of Claim 1, wherein the single wall carbon nanotube composition comprises up to about 80 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

14. The composition of Claim 6, wherein the single wall carbon nanotubes are metallic, semi-conducting, or a combination comprising at least one of the foregoing carbon nanotubes.

15. The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% metallic carbon nanotubes.

16. The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% semi-conducting carbon nanotubes.

17. The composition of Claim 6, wherein the single wall carbon nanotubes are armchair nanotubes, zigzag nanotubes, or a combination comprising at least one of the foregoing nanotubes.

18. The composition of Claim 14, wherein the single wall carbon nanotubes comprise about 1 to about 80 wt% impurities.

19. The composition of Claim 1, wherein the nanosized conductive fillers have at least one dimension of less than or equal to about 100 nanometers.

20. The composition of Claim 1, wherein the nanosized conductive fillers are carbon black, multiwall carbon nanotubes, vapor grown carbon fibers, conductive metal particles, conductive metal oxides, metal coated fillers, nanosized conducting organic/organometallic fillers, conductive polymers, or a combination comprising at least one of the foregoing fillers.

21. The composition of Claim 20, wherein the metal coated fillers and the conductive metal particles comprise aluminum, copper, magnesium, chromium, tin, nickel, silver, iron, titanium, or a combination comprising at least one of the foregoing metals.

22. The composition of Claim 20, wherein the metal coated fillers comprise silica powder, boron-nitride powder, boron-silicate powder, alumina, magnesium oxide, wollastonite, calcium sulfate, calcium carbonate, talc, mica, feldspar, silicate spheres, flue dust, cenospheres, fillite, aluminosilicate, sand, quartz, quartzite, perlite, tripoli, diatomaceous earth, synthetic silica, or a combination comprising at least one of the foregoing fillers.

23. A conductive composition comprising:

an organic polymer;

a single wall nanotube composition, wherein the single wall nanotube composition contains at least 0.1 wt% of production related impurities; and

a nanosized conductive filler.

24. The composition of Claim 23, wherein the organic polymer is a a polyacetal, polyacrylic, polycarbonate, polystyrene, polyester, polyamide, polyamideimide, polyarylate, polyarylsulfone, polyethersulfone, polyphenylene sulfide, polyvinyl chloride, polysulfone, polyimide, polyetherimide, polytetrafluoroethylene, polyetherketone, polyether etherketone, polyether ketone ketone, polybenzoxazole, polyoxadiazole, polybenzothiazinophenothiazine, polybenzothiazole, polypyrazinoquinoxaline, polypyromellitimide, polyquinoxaline, polybenzimidazole, polyoxindole, polyoxoisoindoline, polydioxoisoindoline, polytriazine, polypyridazine, polypiperazine, polypyridine, polypiperidine, polytriazole, polypyrazole, polypyrrolidine, polycarborane, polyoxabicyclononane, polydibenzofuran, polyphthalide, polyacetal, polyanhydride, polyvinyl ether, polyvinyl thioether, polyvinyl alcohol, polyvinyl ketone, polyvinyl halide, polyvinyl nitrile, polyvinyl ester, polysulfonate, polysulfide, polythioester, polysulfone, polysulfonamide, polyurea, polyphosphazene, polysilazane, or a combination comprising at least one of the foregoing organic polymers.

25. The composition of Claim 23, wherein the single wall carbon nanotube composition comprises single wall carbon nanotubes having a diameter of about 0.7 to about 2.4 nanometers.

26. The composition of Clam 25, wherein the single wall carbon nanotubes have an aspect ratio of greater than or equal to about 5.

27. The composition of Claim 25, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 10 carbon nanotubes.

28. The composition of Claim 25, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 100 carbon nanotubes.

29. The composition of Claim 25, wherein the single wall carbon nanotubes exist in the form of ropes of at least about 1000 carbon nanotubes.

30. The composition of Claim 23, wherein the single wall carbon nanotube composition comprises up to about 10 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, nano-onions, nanohorns, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

31. The composition of Claim 23, wherein the single wall carbon nanotube composition comprises up to about 80 wt% impurities, wherein the impurities are iron, iron oxides, yttrium, cadmium, nickel, cobalt, copper, soot, nano-onions, nanohorns, amorphous carbon, multi-wall carbon nanotubes, or a combination comprising at least one of the foregoing impurities.

32. The composition of Claim 25, wherein the single wall carbon nanotubes are metallic, semi-conducting, or a combination comprising at least one of the foregoing carbon nanotubes.

33. The composition of Claim 25, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% metallic carbon nanotubes.

34. The composition of Claim 25, wherein the single wall carbon nanotubes comprise about 1 to about 99.99 wt% semi-conducting carbon nanotubes.

35. The composition of Claim 25, wherein the single wall carbon nanotubes are armchair nanotubes, zigzag nanotubes, or a combination comprising at least one of the foregoing nanotubes.

36. The composition of Claim 35, wherein the single wall carbon nanotubes comprise about 1 to about 80 wt% impurities.

37. The composition of Claim 23, wherein the nanosized conductive fillers have at least one dimension of less than or equal to about 100 nanometers.

38. The composition of Claim 23, wherein the nanosized conductive fillers are carbon black, multiwall carbon nanotubes, vapor grown carbon fibers, conductive metal particles, conductive metal oxides, metal coated fillers, nanosized conducting organic/organometallic fillers, conductive polymers, or a combination comprising at least one of the foregoing fillers.

39. The composition of Claim 38, wherein the metal coated fillers and the conductive metal particles comprise aluminum, copper, magnesium, chromium, tin, nickel, silver, iron, titanium, or a combination comprising at least one of the foregoing metals.

40. The composition of Claim 38, wherein the metal coated fillers comprise silica powder, boron-nitride powder, boron-silicate powder, alumina, magnesium oxide, wollastonite, calcium sulfate, calcium carbonate, talc, mica, feldspar, silicate spheres, flue dust, cenospheres, fillite, aluminosilicate, sand, quartz, quartzite, perlite, tripoli, diatomaceous earth, synthetic silica, or a combination comprising at least one of the foregoing fillers.

41. A method for manufacturing a conductive composition comprising:

blending an organic polymer, a single wall carbon nanotube composition and a nanosized conductive filler in a manner effective to render to the composition an electrical volume resistivity less than or equal to about $10e^8$ ohm-cm, and a notched Izod impact strength of greater than or equal to about 5 kilojoules/square meter.

42. The method of Claim 41, wherein the blending comprises melt blending, solution blending or combinations comprising at least one of the foregoing methods of blending.

43. The method of Claim 41, wherein the organic polymer is synthesized from monomers, dimers, trimers or combinations comprising at least one of the foregoing monomers, dimers or trimers during the process of blending.

44. The method of Claim 43, wherein the solution blending comprises sonication of the single wall carbon nanotube composition in the presence of the monomer prior to the polymerization of the polymer.

45. The method of Claim 41, wherein the organic polymer is semi-crystalline or amorphous and has a molecular weight of about 100g/mole to about 1,000,000 g/mole.

46. The method of Claim 41, wherein the blending of the conductive composition involves the use of shear force, extensional force, compressive force, ultrasonic energy, electromagnetic energy, thermal energy or combinations comprising at least one of the foregoing forces and energies and is conducted in processing equipment wherein the aforementioned forces are exerted by a single screw, multiple screws, intermeshing co-rotating or counter rotating screws, non-intermeshing co-rotating or counter rotating screws, reciprocating screws, screws with pins, barrels with pins, screen packs, rolls, rams, helical rotors, or combinations comprising at least one of the foregoing.

47. The method of Claim 41, wherein the blending comprises extrusion and wherein the single wall carbon nanotubes are fed downstream as a masterbatch during extrusion.

48. The method of Claim 39, wherein the specific energy utilized for the blending is an amount of about 0.01 kwhr/kg to about 10 kwhr/kg.

49. An article manufactured from the composition of Claim 1.

50. An article manufactured from the composition of Claim 23.

51. An article manufactured by the method of Claim 41.